should be preferably subjected to elimination of the polymerization inhibitor by, for example, distillation, prior to the reaction. The same goes for any reaction in which the compound (A) is allowed to react with the compound (B) in the presence of the imide compound.

According to the invention, a variety of organic compounds as shown below can be obtained by allowing an appropriate combination of the compound (A) capable of forming a stable radical with the radical scavenging compound (B) to react with each other.

1. Production of 2,3-Dihydroxy Compound

A first embodiment of the productions will be described below. When the alcohol of the formula (2) is allowed to react with the active olefin of the formula (3) in the presence of molecular oxygen by catalysis of the imide compound of the formula (1), the 1,3-dihydroxy compound of the formula (4) is formed.

The organic group in R^a and R^b in the formula (2) has only to be an organic group that does not adversely affect the reaction (e.g., an organic group that is not reactive under reaction conditions according to the process). Such organic groups include, for example, hydrocarbon groups and heterocyclic groups.

The hydrocarbon groups include aliphatic hydrocarbon groups, alicyclic hydrocarbon groups, and aromatic

Illustrative protective groups for carboxyl group include, but are not limited to, alkoxy groups (e.g., methoxy, ethoxy, butoxy, and other C_1-C_6 alkoxy groups), cycloalkyloxy groups, aryloxy groups (e.g., phenoxy group), aralkyloxy groups (e.g., benzyloxy group), trialkylsilyloxy groups (e.g., trimethylsilyloxy group), amino groups which may have a substituent (e.g., amino group; methylamino group, dimethylamino group, and other mono- or di-C_1-C_6 alkylamino groups), hydrazino group, alkoxycarbonylhydrazino groups, and aralkyloxycarbonylhydrazino groups. Preferred protective groups for carboxyl group are C_1-C_6 alkoxy groups (especially, C_1-C_4 alkoxy groups), and mono- or di-C_1-C_6 alkylamino groups (especially, mono- or di-C_1-C_4 alkylamino groups).

Heterocyclic rings constituting heterocyclic groups in R^a and R^b include aromatic heterocyclic rings and non-aromatic heterocyclic rings. Such heterocyclic rings include, but are not limited to, heterocyclic rings each containing an oxygen atom as a heteroatom (e.g., furan, tetrahydrofuran, oxazole, isoxazole, and other 5-membered rings, 4-oxo-4H-pyran, tetrahydropyran, morpholine, and other 6-membered rings, benzofuran, isobenzofuran, 4-oxo-4H-chromene, chroman, isochroman, and other condensed rings), heterocyclic rings each containing a sulfur atom as a heteroatom (e.g., thiophene, thiazole, isothiazole, thiadiazole, and other 5-membered rings, 4-oxo-4H-thiopyran, and other 6-membered rings,